

CLAIMS

1. A marker gene for rheumatoid arthritis test consisting of a consecutive partial DNA sequence comprising at least one base exhibiting single nucleotide polymorphism present in a TNXB, NOTCH4, RAB6A, MPRL48, UCP2 or UCP3 gene in the human genomic DNA sequence, or of a complementary strand of the partial DNA sequence.

2. The marker gene according to claim 1, wherein the base exhibiting single nucleotide polymorphism is characterized by being selected from the group consisting of:

the 61st base in SEQ ID NO: 1 or a corresponding base on a complementary strand thereof;

the 61st base in SEQ ID NO: 2 or a corresponding base on a complementary strand thereof;

the 61st base in SEQ ID NO: 3 or a corresponding base on a complementary strand thereof;

the 61st base in SEQ ID NO: 4 or a corresponding base on a complementary strand thereof;

the 401st base in SEQ ID NO: 5 or a corresponding base on a complementary strand thereof;

the 495th base in SEQ ID NO: 6 or a corresponding base on a complementary strand thereof;

the 61st base in SEQ ID NO: 7 or a corresponding base on a complementary strand thereof;

the 61st base in SEQ ID NO: 8 or a corresponding base  
on a complementary strand thereof;

the 61st base in SEQ ID NO: 9 or a corresponding base  
on a complementary strand thereof;

the 61st base in SEQ ID NO: 10 or a corresponding base  
on a complementary strand thereof;

the 401st base in SEQ ID NO: 11 or a corresponding base  
on a complementary strand thereof;

the 401st base in SEQ ID NO: 12 or a corresponding base  
on a complementary strand thereof;

the 401st base in SEQ ID NO: 13 or a corresponding base  
on a complementary strand thereof;

the 503rd base in SEQ ID NO: 14 or a corresponding base  
on a complementary strand thereof;

the 201st base in SEQ ID NO: 15 or a corresponding base  
on a complementary strand thereof;

the 511th base in SEQ ID NO: 16 or a corresponding base  
on a complementary strand thereof;

the 201st base in SEQ ID NO: 17 or a corresponding base  
on a complementary strand thereof;

the 51st base in SEQ ID NO: 18 or a corresponding base  
on a complementary strand thereof;

the 61st base in SEQ ID NO: 19 or a corresponding base  
on a complementary strand thereof;

the 497th base in SEQ ID NO: 20 or a corresponding base  
on a complementary strand thereof;

the 201st base in SEQ ID NO: 21 or a corresponding base on a complementary strand thereof; and

the 201st base in SEQ ID NO: 22 or a corresponding base on a complementary strand thereof.

3. The marker gene according to claim 1 or 2, wherein the marker gene is 50 to 1500 bp in length.

4. The marker gene according to claim 3, wherein the marker gene is 100 to 1000 bp in length.

5. A method for testing rheumatoid arthritis comprising collecting a partial DNA sequence corresponding to a marker gene according to any one of claims 1 to 4 from a test subject, determining a nucleotide sequence of the partial DNA sequence, and comparing the nucleotide sequence with a corresponding nucleotide sequence obtained from a normal individual.

6. A test kit for rheumatoid arthritis comprising a marker gene according to any one of claims 1 to 4 or a primer thereof.

7. The test kit according to claim 6, wherein the primer has a DNA sequence represented by any of SEQ ID NOs: 23 to 66.

8. A vector comprising a DNA sequence of a marker gene according to any one of claims 1 to 4.

9. A host cell transformed with a vector according to claim

8.

10. A polypeptide encoded by a marker gene according to any one of claims 1 to 4.

11. A method for producing a polypeptide according to claim 10, comprising incubating a host cell according to claim 8 under conditions suitable for expression.

12. A screening method using a polypeptide according to claim 10.

13. An agonist and/or antagonist obtained by a screening method according to claim 12.

14. A diagnostic, preventive, and/or therapeutic drug for rheumatoid arthritis comprising an agonist and/or antagonist according to claim 13.